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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,046	05/24/2001	Manabu Hanakawa	9319S-000215	2310

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EXAMINER

SCHECHTER, ANDREW M

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 06/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/865,046

Applicant(s)

HANAKAWA ET AL.

Examiner

Andrew Schechter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-17 and 22-26 is/are allowed.
- 6) ☒ Claim(s) 18-20 is/are rejected.
- 7) ☒ Claim(s) 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Liquid crystal device having multi-layer electrode, method of making the same, and electronic apparatus".

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by *Anzaki et al.*, Japanese Patent Document No. 09-283866.

Anzaki discloses [see abstract] a liquid crystal display [inherently having first and second substrates with liquid crystal therebetween] comprising a lead [10] comprising an underlying film [1] which is a metal oxide [ITO], a metal film [2] which is on it and is silver, and a metal oxide film [3] deposited on that. Claims 18-20 are therefore anticipated.

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4. Claims 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by *Fukuyoshi et al.*, Japanese Patent Document No. 09-220806. [Equivalent to U.S. Patent No. 5,667,853.]

Fukuyoshi discloses [see abstract] a liquid crystal display [inherently having first and second substrates with liquid crystal therebetween] comprising a lead [10] comprising an underlying film [12] which is a metal oxide, a metal film [11] which is on it and is silver, and a metal oxide film [13] deposited on that. Claims 18-20 are therefore anticipated.

Allowable Subject Matter

5. Claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. Claims 1-17 and 22-26 are allowed.
7. The following is a statement of reasons for the indication of allowable subject matter:

The prior art [discussed above] discloses liquid crystal devices with multi-layer electrodes including an underlying film, a silver film, and a metal oxide film. The prior art does not disclose a liquid crystal device comprising an underlying film, a reflective, conductive, silver-containing film on it, and a metal oxide film on that which is patterned so that an edge portion comes into contact with the underlying film. The prior art [such as *Harano*, U.S. Patent No. 6,317,185] discloses liquid crystal displays with such three-

layer electrodes having the top layer coming into contact with the bottom layer, but does not disclose the middle layer containing silver. Independent claims 1, 5, 14, 22, 23, and 24 are therefore allowed, as are their dependent claims 2-4, 6-13, 15-17, 25, and 26.

Regarding claim 21, the prior art does not disclose the first substrate having first and second extending regions which do not overlap the second substrate, where the lead (underlying film – metal film – metal oxide film) is provided over both extending regions. (This is understood by the examiner to mean that at least one such lead is on both regions as shown in Figs. 8-10, rather than the first region has such a lead and the second region has a different such lead.) Claim 21 would therefore be allowable if rewritten appropriately.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Japanese Patent Document Nos. 09-281516 and 09-236811, made of record by the applicant, also disclose metal oxide – silver – metal oxide layers for use in LCDs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Schechter whose telephone number is (703) 306-5801. The examiner can normally be reached on Monday - Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on (703) 305-3492. The fax phone numbers

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for the organization where this application or proceeding is assigned are (703) 746-4711 for regular communications and (703) 746-4711 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

AS

Andrew Schechter
June 6, 2003

TOANTON
PRIMARY EXAMINER